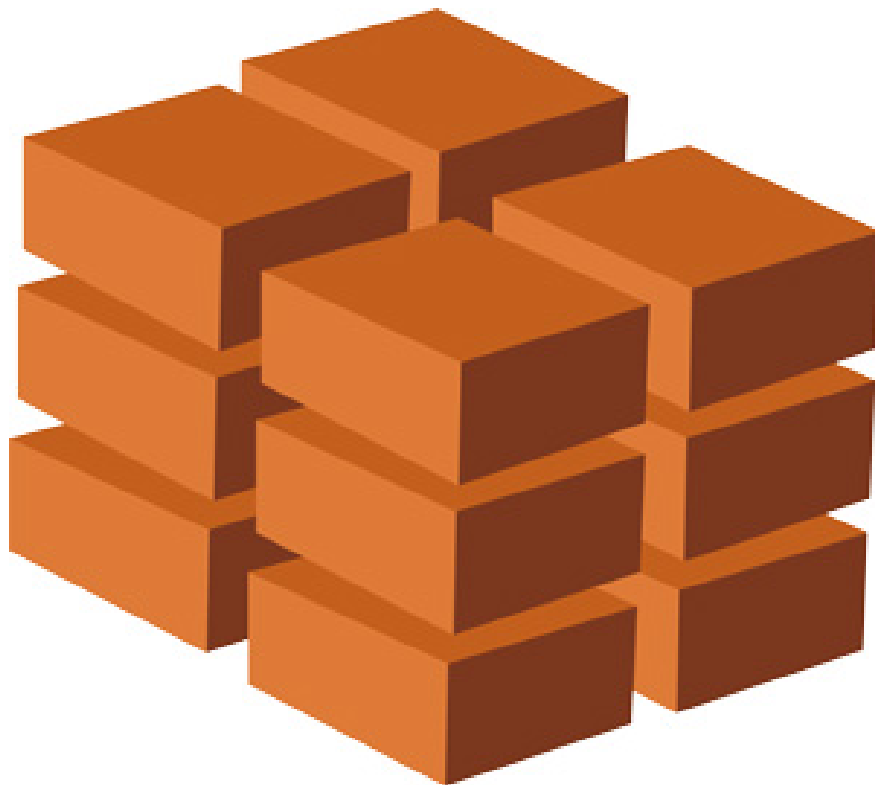


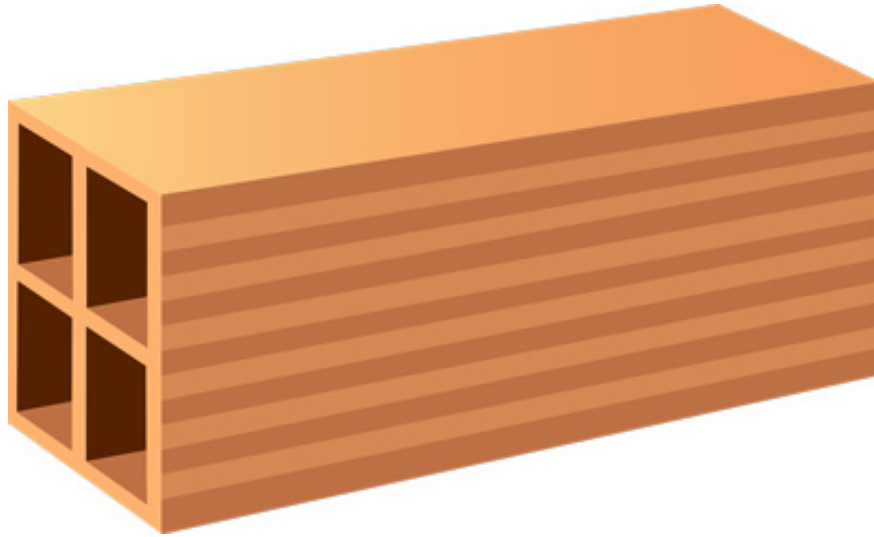
# The formula for calculating rectangular box area, rectangular box volume

You can easily deduce how to calculate the surrounding area, the total area and the rectangular box volume based on the formula for calculating the area of the rectangle and the perimeter of the rectangle.

**The rectangular box** is a space with 6 faces that are rectangular with 8 vertices and 12 edges. The two sides of the box parallel to each other are called opposite faces. Thus 6 faces of the box are divided into 3 pairs of opposite faces (including 1 pair of bottom and 2 pairs of sides).

The opposite sides of the rectangular box are considered to be the two sides of the rectangular box, the other sides are the sides of the rectangular box.

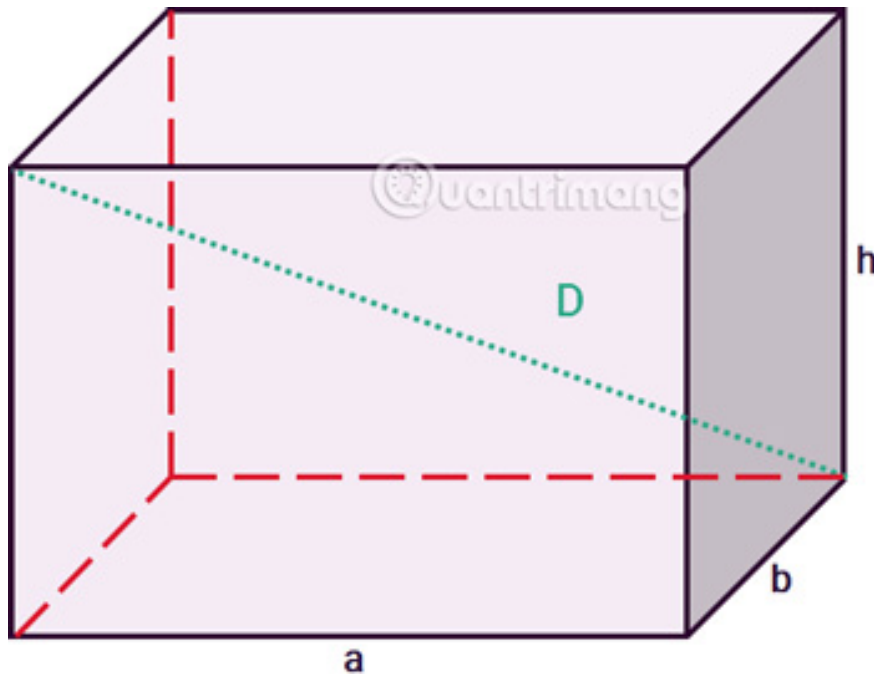




The rectangular box is one of the most common images in reality, and many of the objects in life are either rectangular or similar in rectangular shape. You can easily deduce how to calculate the surrounding area, the total area and the rectangular box volume based on the formula for calculating the area of the rectangle and the perimeter of the rectangle.

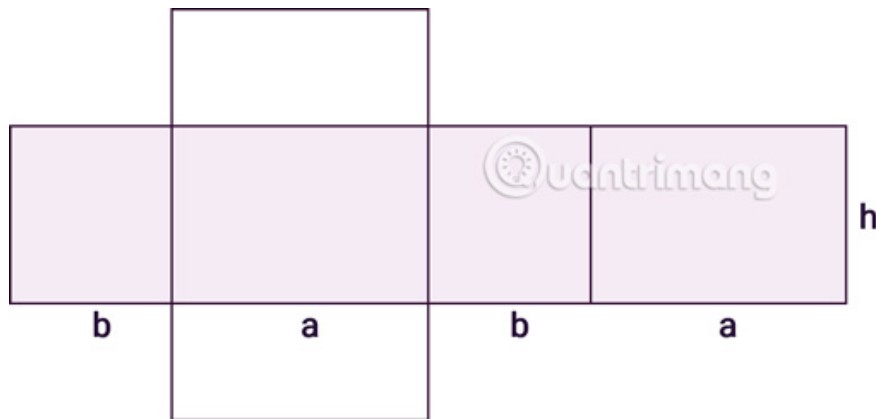
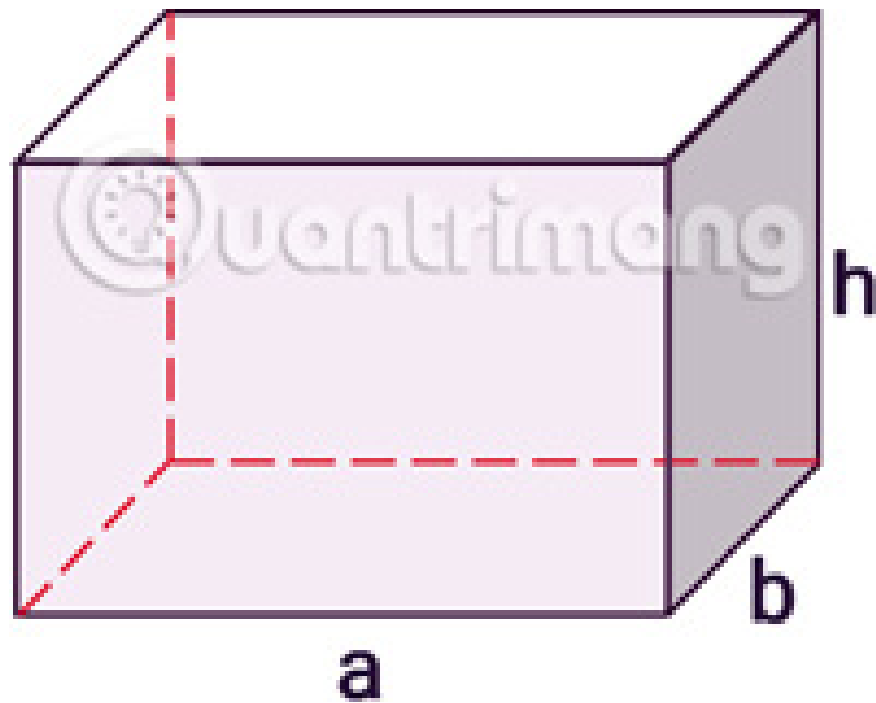
In this article, TipsMake.com will summarize the formulas related to rectangular boxes so you can easily follow and apply when needed. Bookmark now.

We have the rectangular box as follows:



### Formula to calculate rectangular box area

**1. The surrounding area:** The area around the rectangular box is equal to the total area of the 4 sides of the figure (except for the 2 bottom faces).



The formula calculates the area around the rectangular box: equal to the product of the bottom circumference and height:

Picture 6 of The formula for calculating rectangular box area, rectangular box volume

**2. Total area:** The total area of the rectangular box is equal to the total area of the 6 faces of the box.

The formula calculates the full area of the rectangular box: equal to the total area around the rectangular box and the remaining 2 sides:

Picture 7 of The formula for calculating rectangular box area, rectangular box volume

Picture 8 of The formula for calculating rectangular box area, rectangular box volume

Inside:

1.  $S$  is a rectangular box (around, full).
2.  $a$  is the rectangular box length.
3.  $b$  is the rectangular box width.
4.  $h$  is the rectangular box height.

## Formula to calculate rectangular box shape

**The volume of rectangular box** is the amount of space that is occupied, calculated by the product of the bottom area and the height:

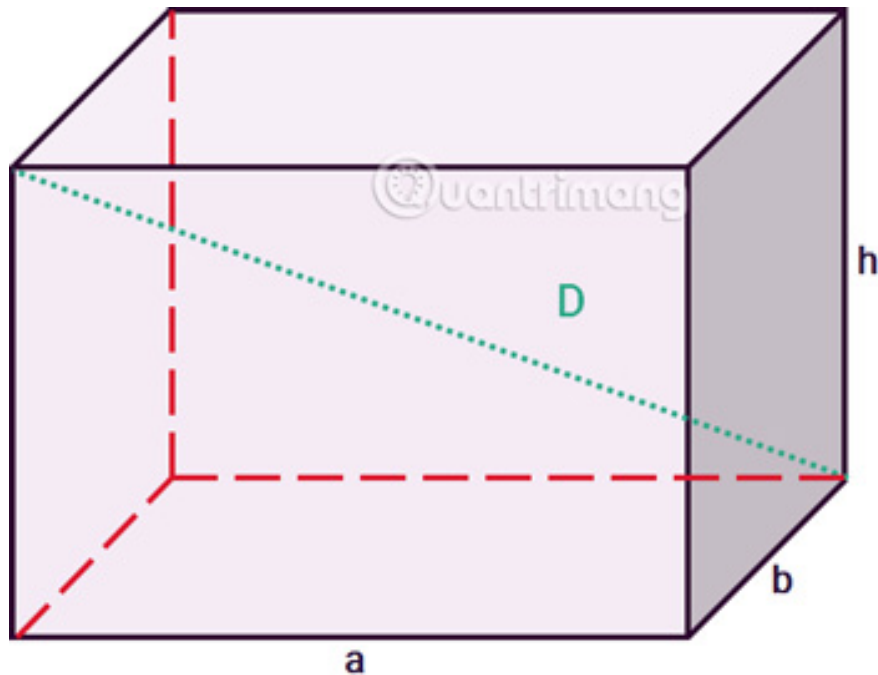
Picture 9 of The formula for calculating rectangular box area, rectangular box volume

Inside:

1.  $V$  is the rectangular box volume.
2.  $a$  is the rectangular box length.
3.  $b$  is the rectangular box width.
4.  $h$  is the rectangular box height.

## Formula for calculating rectangular diagonal boxes

The diagonal of the rectangular box is equal. The formula is calculated as follows:



Picture 11 of The formula for calculating rectangular box area, rectangular box volume

Inside:

1.  $D$  is the rectangular box diagonal.

2. a is the rectangular box length.
3. b is the rectangular box width.
4. h is the rectangular box height.

The above is a combination of formulas for rectangular boxes, surrounding area, total area and rectangular box volume. Any questions, please comment below to exchange with TipsMake.com.

You finished reading the article "**The formula for calculating rectangular box area, rectangular box volume**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.

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